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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,110

11/14/2003

Clemens Jung

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1927

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05/26/2009

WHIRLPOOL PATENTS COMPANY - MD 0750  
500 RENAISSANCE DRIVE - SUITE 102  
ST. JOSEPH, MI 49085

EXAMINER

KO, STEPHEN K

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

05/26/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/714,110	<b>Applicant(s)</b> JUNG ET AL.	
	<b>Examiner</b> STEPHEN KO	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04/23/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,8-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,8-10 and 12-18 is/are rejected.
- 7) ☒ Claim(s) 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The non-final rejection mailed on 7/16/2007 and the examiner's answer, mailed on 3/14/2008, have been withdrawn in view of the decision by the BPAI dated 04/23/2009. However, in light of the newly discovered reference to JP07-59716 the prosecution is reopened.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 9-10, 12-17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-59716.

JP 07-59716 teaches a method of cleaning dishes in a dishwasher in accordance with a programmed wash cycle implemented by a central control unit (paragraph [0017]) comprising a prewashing step (paragraph [0019]) and a washing step (paragraph [0019]), the method comprising determining the quality of stains on tableware as to whether they are water-soluble or not and decide the optimum washing condition in accordance with the estimation (abstract).

For claims 13-14, note that JP 07-59716 teaches determination of solubility occurs during the prewashing step (paragraph [0020]).

For claim 15, note that JP 07-59716 teaches setting a water temperature of the cleaning step (paragraph [0024]).

For claim 16, JP 07-59716 teaches determining the solubility of the soil on the dishes comprises determining a turbidity characteristic of the rinse liquid (paragraph [0023]).

For claims 17-18, JP 07-59716 teaches determining a length of time required for the turbidity to stop increasing during the rinse step (Fig.4, note that the D3 is taken at a predetermined of time when the turbidity stop increasing during prewashing step).

For claim 2, JP 07-59716 teaches the prewashing step comprises not heating the rinsing liquid.

For claim 9, JP 07-59716 teaches a fuzzy set is used in the central control unit for determining the solubility (paragraph [0023]-[0024]).

For claim 10, JP 07-59716 teaches fuzzy rules are programmed in a programmable memory of the central control unit in order to adapt the fuzzy set to changes in the prewashing step (paragraph [0024]-[0025]).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-59716.

JP 07-59716 teaches the temperature of the wash water is controlled between the maximum and minimum value as a function of the turbidity of the rinse liquid and the determined solubility (paragraph [0024]).

JP 07-59716 remains silent about the duration of the cleaning step and the water temperature of the cleaning step are continuously controlled between a minimum value and maximum value.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of JP 07-59716 by having the cleaning step and the water temperature of the cleaning step are continuously controlled between a minimum value and maximum value in order to have a more precise control over the dish washing operation, hence enhance cleaning efficiency.

***Allowable Subject Matter***

8. Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. JP 07-59716 does not anticipate or suggest fairly a method for cleaning dishes having a step of determining the length of time for the turbidity to stop increasing comprises determining a difference in turbidity measurements associated with a selective operation of an upper spray device and a lower spray device respectively in combination with other steps as instantly required. No other prior art that anticipates or suggest fairly the instant claim has been located as of the date of this office action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN KO whose telephone number is (571)270-3726. The examiner can normally be reached on Monday to Thursday, 7:30am to 5:30pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SK

/Michael Kornakov/  
Supervisory Patent Examiner, Art Unit 1792

/Gregory L Mills/  
Supervisory Patent Examiner, Art Unit 1700